D. Gentile

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: JUN 0 1 1994

SUBJECT: Removal Site Evaluation for the Quanta Resources Corporation Site, Edgewater, New Jersey

FROM: Thomas Budroe, CHMM, On-Scene Coordinator Thomas Budroe
Technical Support Section

TO: File

I. INTRODUCTION

Reevaluation of historical analytical data by the United States Environmental Protection Agency (EPA) has demonstrated the Quanta Resources Corporation (QRC) site continues to pose an imminent and substantial danger. As a result, this Removal Site Evaluation (RSE) was conducted to determine the extent of the threat.

EPA has documented the release of numerous Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances to the environment at the QRC site. Polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs) and heavy metals are present in the soils at the site. These contaminants are subject to leaching into the Hudson River which borders the site. Asbestos material is also present in a boiler house which could be accessed by trespassers. CERCLA Hazardous Substances may also be improperly stored in two underground storage tanks (USTs). Due to the substantial probability of CERCLA Hazardous Substances significantly impacting human health and the environment, a CERCLA Removal Action is warranted to address the PCB hotspot at sampling point QE002, the asbestos containing materials, the discharge of hazardous substances to the Hudson River and the underground storage tanks/pipes.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Physical location

The QRC site is in Bergen County at 163 River Road, Edgewater, New Jersey, Lots 1, 2, and 3, Block 95 on the Tax Map of Edgewater Borough (see Attachment 1). QRC was a coal tar processing facility. The facility is located directly west of Manhattan along the Hudson River, approximately midway between the George Washington Bridge and Lincoln Tunnel crossings. Various sized industrial facilities surround the QRC site along the waterfront. A converted industrial building now houses a bank and other business offices on the southern border of the site.

The nearest private residents are located within 1000 feet west of the site. River Road is Edgewater's major vehicular thoroughfare. Several large condominiums are located within 1/2 mile of the site. Residential housing overlooks the site from atop the Palisades, several hundred feet west of River Road. Palisades Interstate Park is located three miles north of the site along the New Jersey Shore of the Hudson River. Several municipal marinas are located near the QRC property. The lower Hudson River is used for recreational purposes and is capable of supporting a substantial sports and commercial fishery. It is a major habitat of the striped bass, a species which supports a multi-million dollar sports fishery along the east coast. The shoreline in the immediate vicinity of the facility has been identified as part of a particularly important nursery area. The river is also a major commercial waterway serving major ports in both New Jersey and New York.

A site map, including locations of current and former site buildings, is presented in Attachment 2. Most of the structures used by QRC are no longer standing, but some former structures are identified by the remains of concrete foundation slabs.

2. Site characteristics

The Allied Chemical-Asphalt Division began operations at the subject property in the 1930's. Allied held the property for several decades until the property was sold in 1974 and the facility was leased by various companies including QRC. These companies were involved in the recovery and reprocessing of waste oil and hazardous waste products.

The facility contained sixty-one aboveground storage tanks with a total storage capacity of 9,000,000 gallons, plus as many as ten underground storage tanks. Large quantities of chemically contaminated waste oil, tar, sludge, asphalt, process water and unknown liquids were stored in tanks throughout the site.

The New Jersey Department of Environmental Protection (NJDEP) stopped QRC operations on July 2, 1981, after learning oil stored in tanks at the facility contained PCBs as high as 260 parts per million (ppm). QRC filed for bankruptcy on October 6, 1981. Principal operating personnel for QRC were charged with hazardous waste violations in New York, New Jersey, Pennsylvania, and Massachusetts with the company President and Terminal Manager being convicted.

After QRC filed for bankruptcy, the facility was not usually occupied. During this time, deterioration of above and underground storage tanks, transfer lines and drainage systems occurred, exacerbating releases of materials stored on site. CERCLA Hazardous Substances contained in these materials included: PCBs, benzene, cyanide, ethyl benzene, phenol, toluene

and trichloroethane. Soils throughout the site were heavily contaminated with chemically tainted oil and other materials released through spillage or poor housekeeping. Large areas of the facility were frequently flooded for extended periods. This flooding combined with an inadequate drainage system resulted in contaminated oily discharges to the Hudson River. River water entering the underground separator discharge line also flushed out quantities of chemically contaminated oily products to the Hudson River with the rising and falling tides.

The stored waste materials, most of the USTs, the aboveground storage tanks and other contaminated structures and media were removed during cleanup actions begun by the EPA in March 1985 (see section II B1).

3. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

On March 23, 1992, two samples of pipe insulation were taken for asbestos analysis. Sample B1 was taken from the boiler house and sample B2 from a pipe immediately in front of the Hudson River bulkhead. Sample locations are noted on attachment 3. Table 1 summarizes the asbestos analytical results:

Table 1: Asbestos Analysis

Sample ID	Amosite	Chrysotile	Non-asbestos
B1	35%	15%	50%
B2	50%	0	50%

Amosite and chrysotile are two forms of asbestos. Therefore, each sample contained a total of 50% asbestos. The asbestos insulation on both pipes was deteriorating and friable. The pipe adjacent to the bulkhead was exposed to the elements.

Under the direction of the EPA, on March 26, 1992, the Technical Assistance Team (TAT) collected five soil samples, one sediment sample and one water sample (see Table 2). These sample locations are noted On Attachment 3.

Two soil samples demonstrated elevated lead levels. Lead is a CERCLA designated Hazardous Substance, as listed in 40 CFR Table 302.4. The analysis for soil samples QE001 and QE002 reported total lead at 350 ppm and 2100 ppm respectively. This is significantly higher than the 600 ppm maximum level stipulated in the New Jersey Department of Environmental Protection and Energy (NJDEPE) Proposed New Rule: N.J.A.C. 7:26D, Clean Standards for Contaminated Sites (CSFCS) for nonresidential surface soils. These concentrations are also considerably elevated above the analyzed background level of 120 ppm, suggesting this contamination is not indigenous to the area..

Lead was detected at 0.2 mg/l in the water sample collected from the Hudson River. The associated CSFCS groundwater standard is .01 mg/l. This demonstrates possible migration of lead from the QRC site to the Hudson River.

Soil sample QE001 demonstrated an elevated level of arsenic at 130 ppm. Arsenic is a CERCLA designated Hazardous Substance. The CSFCS total arsenic level standard of 20 ppm was exceeded in soil samples QE001, QE002 and QE003 at 130 ppm, 25 ppm and 21 ppm, respectively. These levels also exceeded the arsenic concentration detected in the background sample.

Elevated chromium levels were demonstrated in soil samples QE001 and QE002. Chromium is a CERCLA designated Hazardous Substance. Most notably, the chromium level in the sediment sample was 94 ppm which is significantly above the background level of 36 ppm. This elevated level indicates chromium metal may have migrated from the site into the Hudson River and consequently settled, in part, in the river sediments. Moreover, chromium was detected in the Hudson River water sample at 0.28 ppm which exceeds the CSFCS groundwater standard of 0.1 ppm. The following table summarizes the total metals analyses reported for samples taken at the QRC site.

Table 2: Total Metals Analysis - reported in ppm unless otherwise indicated

SAMPLE	ARSENIC	CHROMIUM	LEAD
QE001-SOIL	130	48	350
QE002-SOIL	25	58	2100
QE003-SOIL	13	13	120
QE004-SOIL	21	6	69
QE005-SOIL	7.2	<4	70
QE008-WATER	14 ppb*	280 ppb	200 ppb
QE009-SEDIMENT	15	94	120
QE011-BACKGROUND	20	36	130

*ppb - parts per billion

The following table summarizes the TCLP metals analyses reported for samples taken at the QRC site.

Table 3: TCLP Metals Analysis - reported in ppb

SAMPLE	ARSENIC	CHROMIUM	LEAD
QE001-SOIL	17	<50	300
QE002-SOIL	23	<50	2300
QE003-SOIL	11	50	<100
QE004-SOIL	91	70	400
QE005-SOIL	7	<50	200
QE008-WATER	NOT RUN	NOT RUN	NOT RUN
QE 009-SEDIMENT	38	60	200
QE011-BACKGROUND	3	70	600

PCB-contaminated material becomes regulated by the Toxic Substances Control Act (TSCA) when it reaches the threshold of 50 ppm. PCBs (Aroclor 1242) were found at soil sample point QE002 at 62 ppm. Therefore these soils contaminated with PCBs greater than 50 ppm are regulated by TSCA. PCBs are also a CERCLA designated Hazardous Substance. Moreover, the NJDEPE CSFCS stipulates the soil cleanup level for PCBs is 2 ppm.

VOCs were reported in several soil samples and the water sample. The VOCs listed in Table 4 are all CERCLA designated Hazardous Substances.

Table 4: VOC Analytical Results

Parameter	QE002	QE003	QE004	QE005	QE008
Acetone	---	---	---	19 ppm	30 ppb
Benzene	---	---	---	---	9 ppb
2-Butanone	38 ppm	---	---	---	---
Ethylbenzene	---	18 ppm	6 ppm	---	5 ppb
2-Hexanone	9 ppm	---	---	---	---
Styrene	---	23 ppm	---	---	---
Toluene	---	21 ppm	---	---	5 ppb
Xylenes	2 ppm	126 ppm	16 ppm	5 ppm	10 ppb

VOCs were not detected in the background sample. Again, this seems to indicate the contamination is a consequence of a past discharge on the QRC site.

VOCs detected in various soil samples were also detected in the water sample collected from the Hudson River. It is possible these VOCs are migrating into the river. Moreover, benzene was reported in the river water sample at .009 ppm. The conjugate CSFCS groundwater standard is .001 ppm.

The June 1990 National Institute of Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards lists coal tar (benzene-soluble fraction) and its constituents benzo(a)pyrene, phenanthrene, chrysene, anthracene and pyrene as carcinogens. The following two tables list the levels of some of these constituents, as well as, some SVOCs which exceed the NJDEPE CSFCS standards. All constituents listed in Tables 5 and 6 are CERCLA designated Hazardous Substances. Coal tar-derived constituents in tables 5 and 6 are printed in bold type.

Table 5: Soil Samples-Analytical Results (Units in ppm)

Parameter	QE001	QE002	QE003	QE004	QE005	CSFCS
Naphthalene	------	------	13,000	------	------	4,200
phenanthrene	1,700	4,900	5,500	930	300	*
anthracene	980	------	1,500	230	140	10,000
pyrene	2,700	3,600	3,400	1,200	560	10,000
chrysene	1,100	1,400	850	290	360	2.5
benzo(a)anthracene	980	1,100	790	300	280	2.5
benzo(k)fluoranthene	------	940	------	230	320	2.5
benzo(a)pyrene	1,100	1,100	------	260	250	.25
indeno(1,2,3-cd)pyrene	------	640	------	------	------	2.5
benzo(ghi)perylene	------	520	------	------	------	2.5

* no CSFCS standard stipulated

Table 6: Water and Sediment Samples-Analytical Results (Units in ppm)

Parameter	Water	Sediment	CSFCS
phenanthrene	33 ppb	82	*
anthracene	7 ppb	18	10,000
pyrene	72 ppb	110	10,000
chrysene	20 ppb	35	2.5
benzo(a)anthracene	22 ppb	41	2.5
benzo(k)fluoranthene	12 ppb	32	2.5
benzo(a)pyrene	18 ppb	--------	0.25

* no CSFCS standard stipulated

It is significant to note that none of the SVOCs detected in the background sample were above CSFCS limits.

4. Site assessment activities/observations

The following EPA personnel were directly involved in the Removal Assessment conducted for the QRC site: John Witkowski (908-321-6739) and Thomas Budroe (908-906-6191) of the Technical Support Section (TSS), Edison, New Jersey.

On March 4, 1992, the On-Scene Coordinators (OSCs), an attorney from the Office of Regional Counsel, and potentially responsible parties (PRPs) and/or their consultants inspected the site. Stained soil was evidenced at several locations. Other areas of the site were noted to contain a black solid material which appeared to have been extruded from the ground. Insulation material observed in a defunct boiler house and on a pipe located adjacent and parallel to the bulkhead appeared to be asbestos. Standing water was noted at several locations on site. An inactive oil-water separator was located in the northeastern portion of the site. A sausage-style absorbent boom secured to the bulkhead in the Hudson River encompassed water containing an oily sheen. The exposed sediments in the Hudson River bed adjacent to the bulkhead also had an oily sheen. Other site features included an electrical substation in the northwestern portion of the site and a pile of rubble from the demolition of a smoke stack lay midway between the western fence line and the bulkhead.

On March 23, 1992, TAT conducted a sampling event under the direction of the EPA. Due to inclement weather conditions, sampling was limited to the pipe insulation material in the boiler house and on the pipe adjacent the bulkhead.

On March 26, 1992, under the direction of the EPA, TAT conducted a second sampling event. Five soil samples, one water sample from the Hudson River and an associated sediment sample were collected. The site sampling locations are depicted in Attachment 3. The analytical data package is filed in the Removal Action Branch archives. The samples were analyzed for VOCs, SVOCs, Toxic Characteristic Leaching Procedure (TCLP), Total Petroleum Hydrocarbons (TPH), PCBs, total metals (arsenic, chromium and lead) and total cyanides. PCB and TCLP analyses were not performed on the aqueous samples. A duplicate sample, a rinsate sample, a trip blank and a field blank were also collected to assure a QA-2 level of quality assurance.

The sediment and water samples were collected at low tide directly off the pier within the boomed area. The sediment was dark brown and exhibited an oily sheen. The sediment sample was taken at a depth of zero to six inches, approximately five feet east of the bulkhead and 20 feet from the property fence at the northeast corner of the site. The water sample was taken within two feet of the same location prior to taking the sediment sample.

Five soil samples were collected at an approximate depth of 12 inches. At several sampling locations it was necessary to break through layers of asphalt and concrete to obtain the soil sample. Rock was encountered at a depth of 14 inches. Water with an oily sheen leached into three of the locations during sampling. A two inch diameter copper pipe was noted at a depth of six inches while taking soil sample QE004. An off-site, background soil sample was collected from the hill behind Coffee Associates, Inc. which is opposite the site on River Road.

The OSC conducted a site reconnaissance on April 18, 1994. During this reconnaissance, two fence breaches and two locations at which the fence was incomplete were noted. Several holes bored into the ground and marked with flags were distributed throughout the site indicating a recent sampling event. A pipe approximately two inches in diameter, which surfaced and ended in the southeast area of the site, was oozing a black sludge. The absorbent boom, previously deployed in the Hudson River to sequester the bulkhead, was out of the water laying on the ground. A nine by five foot puddle of a soft black tar-like sludge lay at the bottom of an inclined slab of concrete. This area appeared as if it may have been recently excavated. The asbestos wrapped pipe which had been situated adjacent to the bulkhead was absent. Pockets of river water and sediments adjacent to the bulkhead were covered with an oily sheen. Standing water was observed throughout the site. A channel in the ground along the northeastern area fence line carried standing water towards the Hudson River. A black substance, extruded from the ground to the surface, was noted at several dispersed locations. Some of the exterior metal sheathing enclosing the boiler house were loose and blowing in the wind. A two by ten foot gap had developed in one wall of the boiler house. The interior of this boiler house, which had been documented to contain asbestos, was partially exposed to the elements.

5. NPL status

The QRC site is not a National Priorities List (NPL) site. A Preliminary Assessment was completed for this site on March 26, 1985.

B. Other Actions to Date

1. Previous actions

The NJDEP halted all QRC operations on July 2, 1981. Under threat of Federal and state cleanup action, the landowners hired a contractor in the fall of 1982. Between then and the summer of 1983, the contractor tended to small spills, maintained the containment boom, dismantled sections of transfer line, installed emergency clay diking, constructed an overland discharge line

from the separator to the Hudson River and arranged for the disposal of 200,000 gallons of aqueous waste contained in a leaking facility tank. About 776,000 gallons of salable oil were removed from the site during 1982 through early 1983. Despite these actions, the landowners and their contractor did not accomplish the major portion of the cleanup or stabilization goals. The NJDEP and landowners signed an Administrative Consent Order in November of 1983 which detailed a complete cleanup. This resulted in only minimal and inadequate cleanup activities at the site.

A two part CERCLA Removal Action Memorandum was approved by EPA on March 21, 1985, to mitigate the threats to the environment and human health detailed above (see Attachment 4). The objectives of this removal action are detailed in Section V of Attachment 4. The removal action began on April 3, 1985, and was conducted in two phases. Phase I was an immediate removal to drain PCB-contaminated oil from deteriorating tanks, restore the oil/water separator to normal operation, empty water from badly deteriorated tanks, remove most flammable materials and improve site security.

Phase II was a planned removal to address disposal of the majority of the 750,000 gallons of PCB-contaminated waste oil and 4,000,000 gallons of other hazardous liquids and waste sludges from the storage tanks; emptying, cleaning and filling on-site USTs (with inert material); containing any off-site contaminant leakage; and disposing of all contaminated drums stored on site.

A statutory $1 million exemption request was also signed on March 21, 1985 (see Attachment 5). On May 24, 1985, a ceiling increase request for $517,500 was signed for the immediate removal action. The procurement of additional funds was necessitated since the amount and types of wastes requiring disposal were larger and more complicated than first estimated (see Attachment 6). On July 23, 1985, a second ceiling increase request for $500,000 was signed for the immediate removal action. This elevated the total project ceiling to $1,581,500. The substantiation for this request and a description of work completed to this date are included in the ceiling request in Attachment 7. On August 1, 1985, a six-month time exemption to allow continued removal activities was signed (see Attachment 8).

2. Current actions

Currently, all EPA actions are of an enforcement nature.

C. <u>State and Local Authorities' Role</u>

1. State and local actions to date

See the Previous actions section II B1 above.

2. Potential for continued State/local response

No other State or local response is anticipated in the future.

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

The most significant threats to the public are exposure through direct human contact with contaminated soils and asbestos and indirect contact with contaminated river water and biota. Although access to the site has been restricted by a chain link fence, trespassers can access the site at locations where the fence is incomplete.

PCBs were discovered at sampling point QE002 at 62 ppm. Moreover, analysis of other site soils, sediments and river water indicated SVOCs (including carcinogenic coal tar derivatives), VOCs and heavy metals were also present (see Tables 1 through 6). Asbestos was also found in the boiler house and on piping adjacent to the bulkhead (recently removed without notification being given to EPA).

Surface soils may be a more significant exposure pathway if future use of the site is residential. Exposure can occur via dermal contact, ingestion of home grown crops, and inhalation of particulates. Contaminant concentrations remaining in the subsurface soils may be a concern if, during any future construction activities, these soils are brought to the surface where dermal contact and particulate inhalation are possible.

The health effects of some of the site contaminants detected in the water, sediment and soils are outlined below. Synergistic adverse effects are possible in conjunction with any combination of the hazardous substances at the site.

Arsenic: Arsenic is a listed carcinogen. Inhalation, ingestion and/or dermal contact can cause ulceration of the nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation and hyperpigmentation of the skin.

Asbestos: Asbestos is a listed carcinogen. Inhalation or ingestion can cause Dyspnea, interstitial fibrosis, restricted pulmonary function and/or finger clubbing.

Benzene: Benzene is a listed carcinogen. Inhalation, ingestion and/or dermal contact can cause irritation of the eyes, nose and respiratory system, giddiness, headache, nausea, staggered gait, bone marrow depression, fatigue, anorexia, lassitude and dermatitis.

Chromium: Inhalation, ingestion and/or contact with chromium can cause respiratory system irritation, nasal septum perforation, liver and kidney damage, leukocytosis, leukopenia, monocytosis, eosinophilia, conjunctivitis, skin ulcer and sensitization dermatitis. In addition to their toxicity, many chromate compounds are listed carcinogens.

Lead: Inhalation, ingestion and/or dermal contact with lead metal can cause weakness, lassitude, insomnia, facial pallor, anorexia, weight loss, malnutrition, constipation, abdominal pain, colic, anemia, gingival lead line, tremor, paralysis of wrists and ankles, encephalopathy, nephropathy, irritation to the eyes and hypotension.

Ethyl benzene: Inhalation, ingestion and/or skin absorption of ethyl benzene can cause dermatitis, narcosis, coma, mucous membrane damage, headache and eye irritation.

PCBs: Ingestion and dermal contact with PCBs can cause cancer, dermatitis, liver damage, edema, jaundice, vomiting, anorexia, nausea, abdominal pains and fatigue.

Toluene: Inhalation, ingestion and/or skin absorption of toluene can cause fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, paresthesia and dermatitis.

Xylenes: Inhalation, ingestion and/or skin absorption of xylene can cause dizziness, excitement, drowsiness, incoordination, staggering gait, eye irritation, corneal vacuolization, anorexia, nausea, vomiting, abdominal pain and dermatitis.

B. Threats to the Environment

The Hudson River adjoins the site on its eastern edge. The indigenous flora and fauna are extremely vulnerable to harm by migrating contaminants. The NJDEP has identified the Hudson River as an active striped bass nursery area. Wharf pilings, piers and other waterfront structures along the New Jersey coastline have been particularly cited as important habitats for the striped bass. Fingerling striped bass have been sighted in the waters around a dilapidated pier structure at the QRC waterfront.

A black material has been observed bubbling and seeping out of the Hudson River sediments in the area directly adjacent the bulkhead. The above actions discharge a sheen of contaminants directly into the river water. The analysis of this black material demonstrates elevated levels of SVOCs and heavy metals. In this local area, the seeps have been observed only in the tract adjacent to the Quanta Resources bulkhead. This material is further contaminating the Hudson River environment.

The subsurface soils of this site are contaminated with heavy metals, PCBs, VOCs and SVOCs. Ground-water flow of this river-side site is reflective of the river's change in tides. As the tide increases, water infiltrates the subsurface soils. When the tide recedes, the ground water washes contaminants from the soil out to the Hudson River. Numerous oily discharges into the Hudson River from the site have been documented by the U.S. Coast Guard, NJDEP and EPA. At times the landowners have installed a containment boom along the Hudson, however, the boom has not been effectively maintained. Moreover, contaminated oil which accumulates behind the boom is not collected and usually escapes to the waters of the Hudson on out-going tides.

A black tar-like material, derived from past releases, is being extruded from the ground to the surface of this site. Larger pockets of this material most likely exist underground. In addition to the asbestos in the boiler house, asbestos was also documented in the insulation of the pipe adjacent to the bulkhead. The current disposition of the asbestos previously on the bulkhead pipe is unknown. These materials are exposed to the natural elements, and therefore, dispersal is possible. USTs and underground piping remaining on site are another potential source of contamination.

PCB contamination has been documented in the subsurface soil. The Handbook of Toxic and Hazardous Chemicals and Carcinogens, 2nd Edition, states that PCBs are of increasing concern because of their "persistence in the environment, and tendency to accumulate in food chains, with possible adverse effects on animals at the top of food webs, including man."

IV. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Due to the soil and sediment contamination and the tidal flux of the ground water, it is likely that contaminants will continue to be released to the Hudson River. Delayed action to remove the contaminated soil and mitigate the possibility of a release from the USTs may significantly contribute to ground-water and surface-water contamination.

Delayed action to remove the contaminated soil and asbestos could increase the chances of direct contact or inadvertent ingestion/inhalation of these materials, and could also result in mobilization of these contaminants to uncontaminated areas.

V. CONCLUSIONS

This site is of potential health concern because of the risk to human health and the environment resulting from possible exposure to CERCLA Hazardous Substances at the site and the continued

migration of contaminants from the surface soils, subsurface soils and river sediments into the ground water and the Hudson River. The potential for exposure to PCBs, lead, benzene, ethylbenzene, toluene, xylene, SVOCs and asbestos exists.

Considering the apparent age and abandoned nature of the USTs, and the possibility that hazardous materials may be contained therein, these tanks pose a threat by means of leakage of material to the subsurface soils and ground water.

The PCB-contaminated soils pose a hazard through direct contact and inadvertent ingestion. Migration through natural or man-made means is also a concern. The removal of the PCB-contaminated soils would eliminate the threat of direct contact. In addition, this removal would reduce the continuing possibility of contaminant mobilization.

There has been a release of CERCLA Hazardous Substances to the environment at the QRC site and there is a continued threat of future releases as well. Due to the substantial probability of a significant impact to human health and welfare and the environment, a CERCLA Removal Action is warranted at this time to address the PCB hotspot surrounding sample point QE002, the asbestos material noted in the text, the underground storage tanks/pipes and the discharge of hazardous substances from surface soils and subsurface soils into the ground water and the Hudson River.

VI. RECOMMENDATION

A CERCLA Removal Action is recommended at this time to mitigate the threats discussed above.

Mitigative measures recommended under a removal action include:

- Restrict access to the Site with a continuous perimeter fence.
- Define the extent of PCB soil contamination surrounding sample point QE002, then excavate and treat/dispose of the PCB-contaminated soil.
- Remove and treat/dispose of all visibly contaminated surface soils and any other soil determined to be contaminated during the course of site remediation activities as determined by the OSC through visual observation, analytical testing or air monitoring.
- Remove the two underground fuel storage tanks reportedly located by the west fence and sample the surrounding soil and treat/dispose of same, as appropriate.

- Remove the septic tank in the "D" tank farm as well as any other underground piping and tanks including residual product and affiliated contaminated soil.

- Remove all underground piping and tanks previously used for the storage and/or transfer of waste or product materials on site as well as any residual material and sample the surrounding soil and treat/dispose of same, as appropriate.

- Remove and dispose of all asbestos containing materials from the boiler building.

- Cap the site, as determined by engineering estimates and sampling results, with an appropriate material. Vegetate and maintain same for 30 years.

- Provide an engineering study and design and construct a ground-water collection and treatment system which precludes the discharge of site contaminants to the Hudson River.

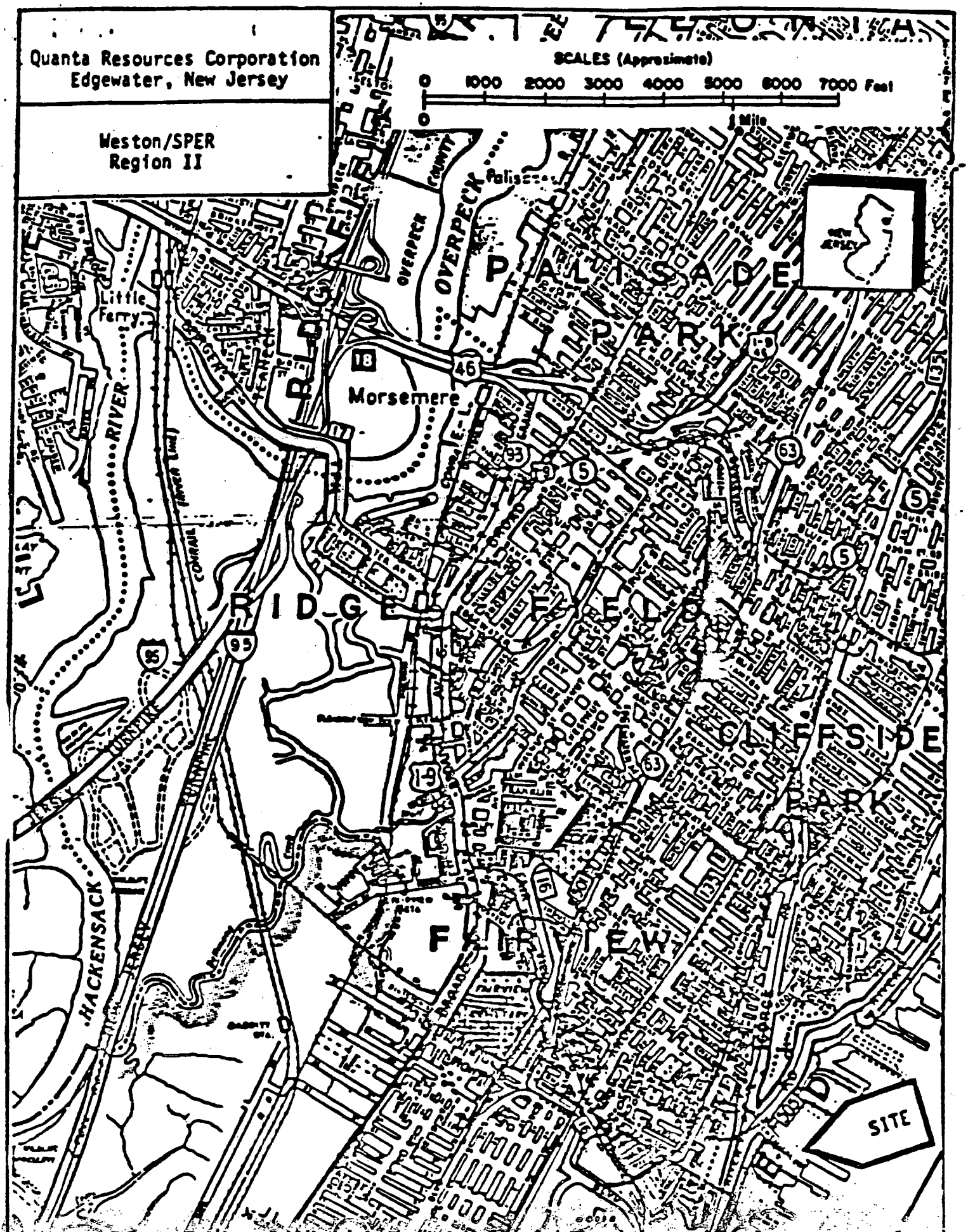
- Remove or permanently seal any pipes terminating at the Hudson River bulkhead.

- Maintain boom deployment/oil collection in the Hudson River at the bulkhead until the ground-water collection/treatment system is functioning adequately.

The public health risk associated with this site could change depending on future uses. Future land use at this site is presently uncertain. These future activities could include excavation and construction for commercial and/or residential use. Should land use or zoning change, further environmental investigation may be warranted.

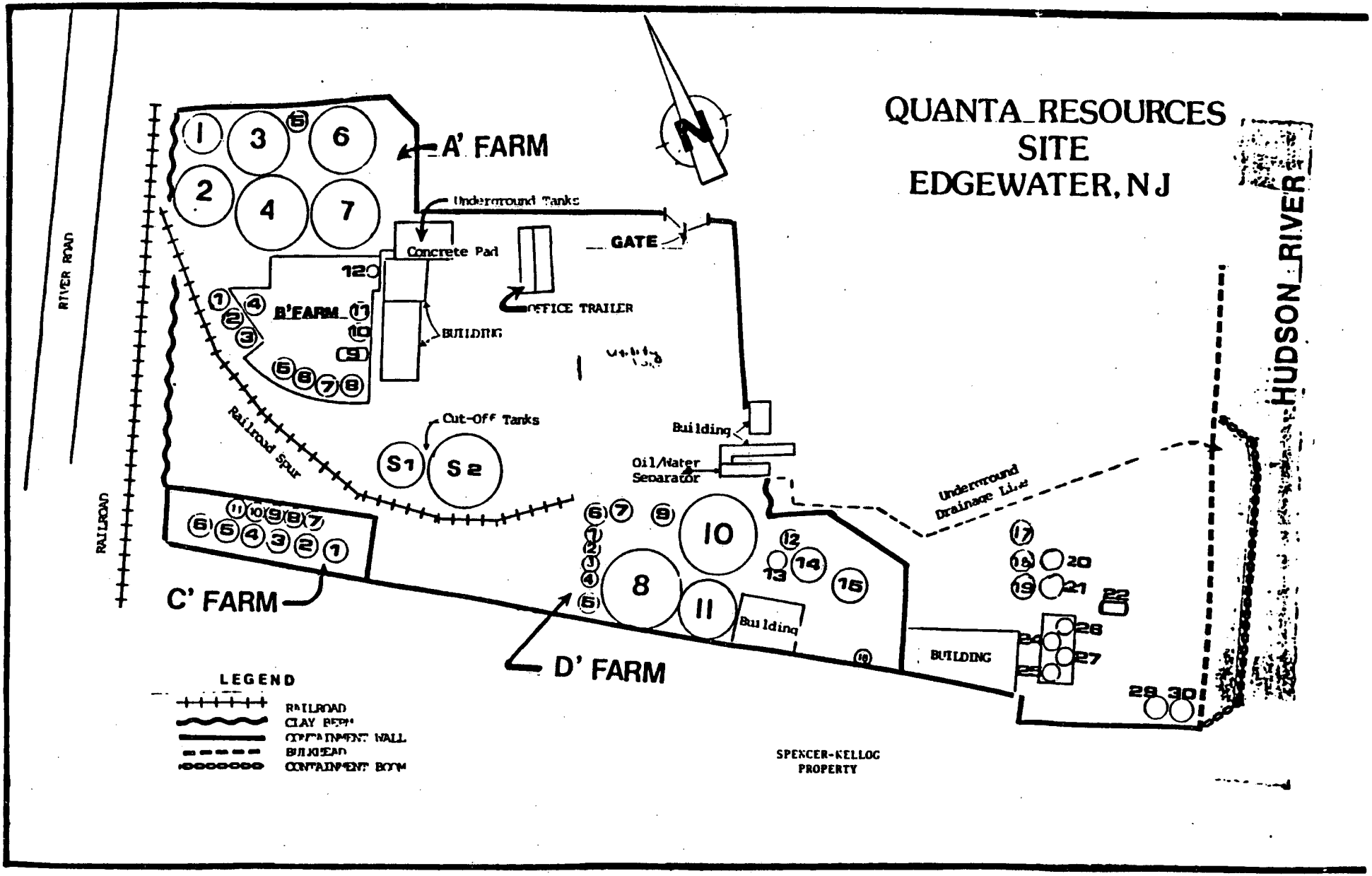
Attachment 1

Site Location Map


Quanta Resources Corporation
Edgewater, New Jersey
Weston/SPER
Region II
SCALES (Approximate)
0 1000 2000 3000 4000 5000 6000 7000 Feet
0 1 Mile
Palisades Park
Little Ferry
Morsemere
RIDGEFIELD
RIDGEFIELD PARK
CLIFFSIDE PARK
FAIRVIEW
HACKENSACK RIVER
SITE

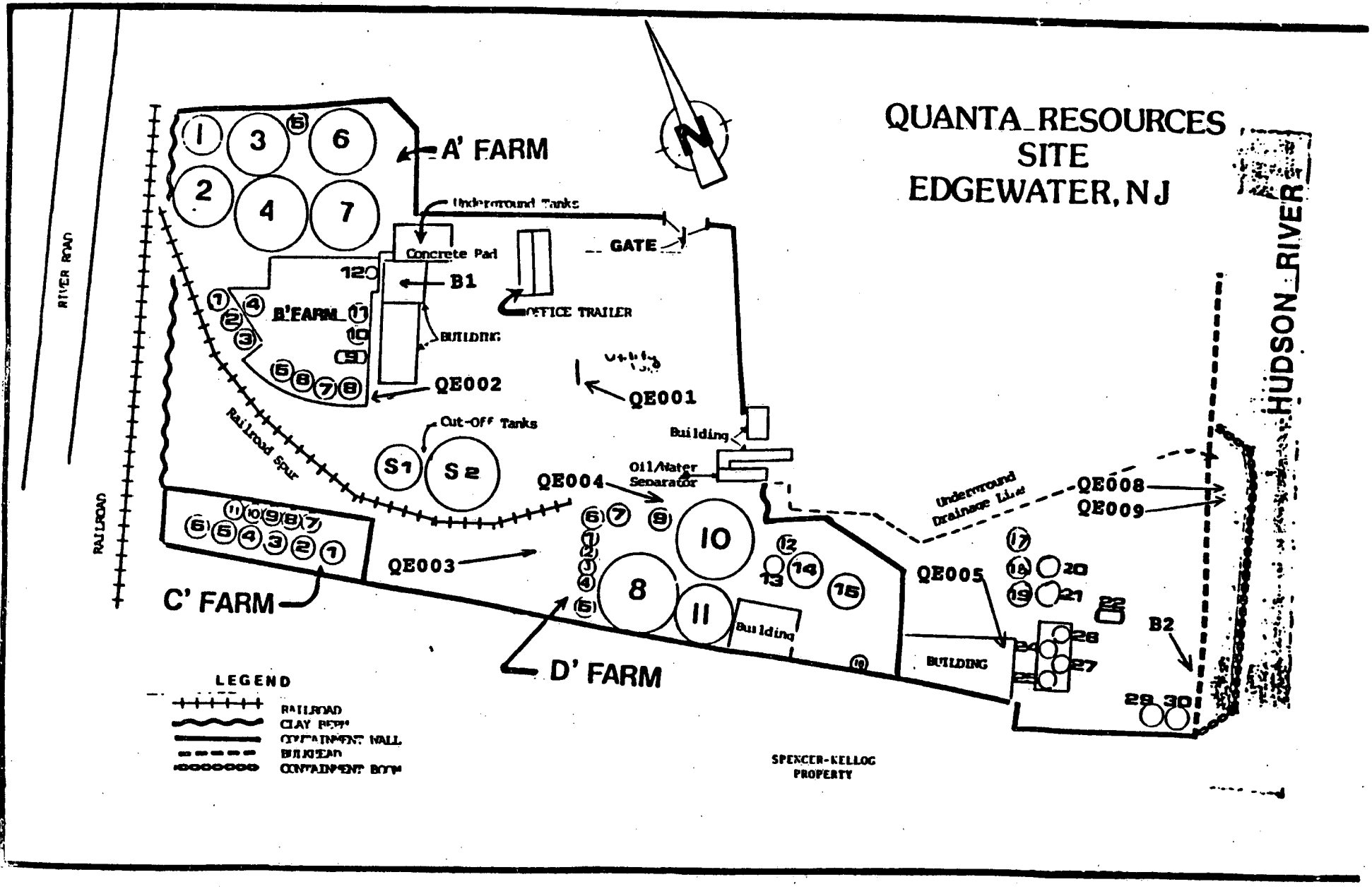
Attachment 2

Site Map


QUANTA RESOURCES
SITE
EDGEWATER, NJ
HUDSON RIVER
RIVER ROAD
RAILROAD
A' FARM
B' FARM
C' FARM
D' FARM
Underground Tanks
Concrete Pad
GATE
OFFICE TRAILER
BUILDING
Railroad Spur
Cut-Off Tanks
S1
S2
Building
Oil/Water Separator
Underground Drainage Line
BUILDING
LEGEND
RAILROAD
CLAY BERM
CONTAINMENT WALL
BULKHEAD
CONTAINMENT BOOM
SPENCER-KELLOG PROPERTY

Attachment 3

Map Denoting Site Sampling Points


QUANTA_RESOURCES
SITE
EDGEWATER, NJ
A' FARM
B' FARM
C' FARM
D' FARM
Underground Tanks
Concrete Pad
GATE
B1
OFFICE TRAILER
BUILDING
QE001
QE002
Cut-OFF Tanks
S1
S2
Railroad Spur
Building
Oil/Water Separator
QE004
QE003
QE005
QE008
QE009
Underground Drainage Lines
BUILDING
B2
RIVER ROAD
RAILROAD
HUDSON_RIVER
LEGEND
RAILROAD
CLAY BERM
CONTAINMENT WALL
BULKHEAD
CONTAINMENT BOOM
SPENCER-KELLOG
PROPERTY

Attachment 4

Action Memorandum Signed March 21, 1985

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: Region II

SUBJECT: Planned Removal Request For The Quanta Resources Corporation Site, Edgewater, New Jersey - ACTION MEMORANDUM

FROM: John Witkowski, OSC
Response and Prevention Branch

TO: Christopher J. Daggett
Regional Administrator

THRU: William J. Librizzi, Director
Emergency and Remedial Response Division

I. PURPOSE:

This is a request for authorization to proceed with a Planned Removal Action at the Quanta Resources Corporation site in Edgewater, New Jersey in the event that formal Enforcement action is unsuccessful. The site is not on the National Priorities List. The New Jersey Department of Environmental Protection (NJDEP) has concluded, as should we, that the public and the environment will be at risk from exposure to hazardous substances if a cleanup response is substantially delayed at this site. The State of New Jersey intends to enter into a contract with EPA for the cleanup. The request of the Governor's representative and a 10% cost sharing commitment have been received.

In addition to the actions detailed in Section V, further measures to remediate this site will be required. These actions would be longer term and would be needed to address chronic releases of oily material from the ground, sludge left in tanks, and PCB contaminated oil not taken off site.

II. BACKGROUND:

A. Site Setting/Description:

The current Quanta site has a history which dates back to the 1930's. At that time, Allied Chemical-Asphalt Division began operations at the property. Allied held the property for several decades whereupon the property was sold and the facility leased by the Hudson Oil Company which later became Quanta Resources Corporation. Hudson Oil and Quanta Resources Corporation were involved in the recovery and reprocessing of waste oil and other hazardous waste products.

The New Jersey Department of Environmental Protection stopped the operations of Quanta Resources Corporation on July 2, 1981, when they learned that oil stored in tanks at the facility contained PCB's as high as 260 ppm. Quanta filed for bankruptcy on October 6, 1981. Principal operating personnel for Quanta have been charged with hazardous waste violations in New York, New Jersey, Pennsylvania, and Massachusetts with Russell Mahler, President, and Kenneth Mansfield, Terminal Manager, being convicted. Since Quanta filed for bankruptcy, the facility has been largely unattended. Extensive deterioration of bulk storage tanks, transfer lines and drainage systems has occurred.

The Quanta Resources Corporation site is in Bergen County at 1 River Road, Edgewater, New Jersey, lots 1, 2, and 3, Block 95 on the Tax Map of Edgewater Borough (see attached map). The facility is located directly west of Manhattan along the Hudson River, about midway between the George Washington Bridge and Lincoln Tunnel crossings. Various size industrial facilities surround the Quanta site along the waterfront. A fresh produce distribution warehouse borders the site to the north and a fertilizer distribution facility borders the site to the west. River Road is Edgewater's major vehicular thoroughfare. Several large condominiums are located within 1/2 mile of the site. Residential housing overlooks the site from atop the Palisades, several hundred feet west of River Road.

The Quanta facility contains 61 aboveground storage tanks with a total storage capacity of approximately 9 million gallons, plus as many as 10 below ground tanks with an approximate storage capacity of 40,000 gallons. Large quantities of chemically contaminated waste oils, sludge, tar, asphalt, process water and unknown liquids remain in tanks throughout the site. About 200 drums containing oils, sludges, contaminated sorbents and debris, and unknowns are staged on the site. Soils throughout the site have become heavily contaminated with chemically contaminated oil and other materials released through recent spills from tanks or previous poor housekeeping at the facility. Large deposits of tar and asphalt have been identified in the soil near the Hudson River.

Since October 1981, upkeep of the Quanta facility has been minimal. Many of the aboveground storage tanks have developed extensive rust around seams and valves. Many leaks have developed at tank seams, valves, and transfer lines. Numerous underground transfer lines have not been tested for integrity or destination. Several of these lines may provide a spill pathway to the Hudson River. Most of the largest tanks on site have either no roofs or partially collapsed wooden roofs. Leaks in 2 underground

tanks have been identified and leaks in other underground tanks are suspected. The onset of winter causes special problems at the facility. Fluctuating winter temperature causes water stored in many of the bulk tanks to freeze and thaw, resulting in extensive damage to tank valves and transfer-line joints, causing more leaks and spills. Temporary emergency clay diking was recently installed at the facility, however, the integrity, capacity, and reliability of this diking is suspect.

A major area of concern at the site is the status of the facility's drainage system. Large areas of the facility are frequently flooded for extended periods. The facility's oil/water separator is in poor condition and is incapable of achieving discharge specifications required under a NJPDES Discharge Permit. In an attempt to meet these discharge specifications, the landowner made some repairs to the separator and installed low flow capacity effluent polishing equipment. However, no data has been submitted to substantiate the effectiveness of the modified system. This compounds the leakage problem at the site. In addition, the underground discharge line from the separator to the Hudson River was found to be heavily contaminated with residual contaminated oils, asphalt and tars.

Water from the Hudson River freely enters the underground separator discharge line and flushes out quantities of chemically contaminated oily products with the rising and falling tides. This results in numerous sporadic contaminated oily discharges to the Hudson River. The landowners have installed a containment boom along the Hudson, however, the boom is not actively maintained and is ineffective in containing the contaminated oily discharges. Contaminated oil which accumulates behind the boom is not collected and usually escapes to the waters of the Hudson on out-going tides.

The NJDEP has identified the Hudson River as an active Striped Bass nursery area. Wharf pilings, piers, and other waterfront structures along the New Jersey coastline of the river have been particularly cited as important habitat for the Striped Bass. Fingerling Striped Bass have been sited in the waters around a dilapidated pier structure at the Quanta waterfront. Palisades Interstate Park is located 3 miles north of the site along the New Jersey Shore of the Hudson River. Several municipal marinas are located near the Quanta property.

B. Quantity and Types of Substances Present:

Approximately 750,000 gallons of chemically contaminated oil is contained in tanks on the site. Oil stored in many

of the facility's tanks has been identified as being contaminated with PCB's which range from below 50 ppm to about 265 ppm. The approximate volume of oil found to be contaminated with PCB's close to or above 50 ppm is 266,000 gallons. Various volatile hydrocarbons have been identified in oil samples including benzene, toluene, trichloroethane, ethyl benzene and phenol. Facility tanks also contain about 4.2 million gallons of contaminated aqueous liquids. Much of this has been shown to have very high COD and TOC levels (see Table 1). Cyanides have also been identified in the water phase of many tanks. In addition to oil and water, a considerable amount of sludge is also stored on site.

EPA has conducted limited air monitoring at the site. Organic Vapor Analyzer (OVA) readings of over 400 ppm have been obtained while measuring vapors released from liquids being pumped from storage tanks during December 1982. Positive tests for benzene and phenol in air have been obtained using Drager tubes and LaMotte Sampling Kits.

The following hazardous substances have been identified:

Substances	Statutory Source For Designation Under CERCLA
PCB	CWA, Section 311(b)(4) RCRA, Section 3001
Benzene	CWA, Section 311(b)(4) RCRA, Section 3001
Toluene	CWA, Section 311(b)(4) RCRA, Section 3001
Trichloroethane	CWA, Section 311(b)(4) RCRA, Section 3001
Ethyl Benzene	CWA, Section 311(b)(4) RCRA, Section 3001
Phenol	CWA, Section 311(b)(4) RCRA, Section 3001
Cyanide	RCRA, Section 3001

NOTE: Documentation is on file at EPA, Edison and consists of data collected and analyzed by OH Materials in 1981, the U.S. EPA in 1982 and 1983, Bayview Environmental (Townley Research) in 1983, and Stablex-Reutter in 1984.

C. The Quanta Resources Corporation site is not on the Interim Priority List or the Expanded Eligibility List.

III. THREAT:

A. Threat of Exposure to Public or the Environment:

At the present time, the temporary emergency clay diking provided around the perimeter of the facility is probably insufficient to contain a major spill from one of the large bulk tanks on site. The deteriorated condition of many of the tanks and transfer lines provides a real potential for serious spills at the site, especially during a severe winter weather cycle. Major storage tanks containing PCB's greater than 50 ppm are found in inadequately diked areas. Based upon the known illegal disposal practices undertaken by Quanta in the past, and the lack of extensive analytical data on much of the actual contents of some of the tanks on site, it is believed that highly toxic materials other than PCB's will be discovered in some of the tanks.

Three major spill pathways exist leading off the site. A sudden, large spill could travel west from the site toward River Road and an active industrial railroad spur. This would pose a direct contact threat to large numbers of persons who utilize River Road. Vehicular traffic could spread contamination over wide areas, including the produce warehouse immediately north of Quanta.

Large spills from the site could travel directly to the Hudson River. Spills could also enter the property bordering on the south and reach the Hudson River via storm drain lines on that property. The tanks on the site are not protected from fires by any type of automatic foam system. Insufficient site security provides the potential for vandalism and arson. A fire in a tank containing hazardous materials would create a plume containing numerous highly toxic compounds, placing the nearby population at risk.

The material contained in this document supports a conclusion by EPA, as lead agency, consistent with paragraph 300.67(a)(2) of the National Contingency Plan, that the public and the environment will be at risk from exposure to hazardous substances if response is delayed at this site, which is not on the NPL. The site contains hazardous substances in drums and bulk storage containers that are known to pose a serious threat to public health and the environment. Weather conditions may cause substances to migrate and pose a serious threat to public health and the environment.

B. Evidence of Extensive Release:

Recurring oily discharges onto the Hudson River from this facility have been documented for several years by the U.S. Coast Guard, EPA, and NJDEP. A spill of several thousand gallons of oil onto the Quanta grounds occurred from Tank D10 in November of 1983 due to overflow as a result of rainwater entering the tank through a partially collapsed wooden roof.

C. Previous Actions to Abate Threat:

EPA and NJDEP have combined efforts to force responsible parties to cleanup and institute spill prevention actions at the site for over 1 year without adequate results.

Under threat of Federal and state cleanup action, the landowners hired a contractor in the Fall of 1982. Between that time and the Summer of 1983, the contractor tended to small spills, maintained the containment boom, dismantled sections of transfer line, installed emergency clay diking, constructed an overland discharge line from the separator to the Hudson River and arranged for the disposal of 200,000 gallons of contaminated water from a leaking facility tank. About 776,000 gallons of salable oil were removed from the site during 1982 through early 1983. Despite being provided with a detailed list of cleanup items which EPA/NJDEP required to be implemented, and aided by frequent technical assistance by EPA/NJDEP, the landowners and their contractor did not accomplish the major portion of those cleanup or stabilization goals.

D. Current Actions to Abate Threat:

After the period of July-August 1983, during which no cleanup activities occurred at the site, EPA and NJDEP again formally notified responsible parties that if renewed cleanup actions did not begin at the site, a combined Federal/State cleanup of the site would be initiated to insure that the facility would be secure for the Winter of 1983-84. The NJDEP and the landowners signed an Administrative Consent Order in November of 1983 which detailed complete cleanup. The landowners hired three separate contractors who assumed responsibility for portions of a renewed round of activities. The facility's oil/water separator was evaluated for repair and operation under NJPDES Permit. New profile samples have been obtained from all tanks. A containment boom and sorbent were installed in the Hudson River, but are not being satisfactorily maintained. However, only minimal cleanup activity has occurred at the site since February 1984.

CWA 311 monies are available to undertake limited actions relating to any uncontaminated oil. The major hazard posed by this site has to do with hazardous substances present and, therefore, would be funded under the CERCL Act.

IV. ENFORCEMENT:

See Attachment.

V. PROPOSED PROJECT AND COSTS:

A. The objectives of the planned removal action are as follows:

1. The existing facility separator will be redesigned and upgraded so that it can treat facility drainage to meet specifications set by NJPDES Permit. The contractor will replace the existing separator with a new unit should redesign be impossible or more costly than total replacement. All drainage lines leading to the separator will be cleaned or redesigned to insure that all areas of the facility will be adequately drained and that oily materials accumulated in lines due to past poor housekeeping will not be constantly flushed into the separator. The underground discharge line from the separator to the Hudson River will be sealed so that discharge to the river through the line is impossible and also so that the tidal waters from the river cannot enter the line. All discharge to the Hudson River will be via the newly constructed above-ground discharge line.

2. All necessary documentation required to meet the requirements of the NJPDES Discharge Permit for the facility will be prepared and submitted.

3. A containment sorbent boom will be maintained along the Quanta waterfront. All accumulated oils will be collected and undergo proper disposal.

4. Bulk storage tanks will be sampled, as necessary, to identify specific chemical contents and contaminants, product phase layering, and total volume, in order to determine disposal options.

5. Disposal strategies will be developed for environmental or health threatening materials (oil, contaminated water, PCB contaminated oil) stored in bulk tanks. These materials will be removed from the storage tanks and disposed of at approved waste disposal facilities.

6. After removal and disposal of sludge from the two cut-off tanks in the facility yard, the tanks will be cleaned and altered so future rainwater will not accumulate within them and cause contaminated oil to enter the yard.

7. Two underground tanks near the A Tank Farm will be emptied, cleaned and filled with inert material. Five underground tanks in the vicinity of the oil/water separator will also be emptied, cleaned and filled with inert material. All other underground tanks will be identified.

8. The dike wall surrounding the C Tank Farm will be repaired to insure complete integrity. The floor of Tank Farm C within the dike will also be inspected and repaired to insure containment integrity. Transfer lines within the C Tank Farm will be dismantled and the drainage effluent valve for the tank farm will be repaired to insure complete drainage control. The inner surface of the dike wall and the tank farm floor will be cleaned so that heavy oil staining is removed.

9. Perimeter diking around the facility will be inspected periodically. An engineering assessment will be made of the adequacy of dike design parameters. Redesign and repair shall be instituted to insure that all possible spills of remaining materials will be contained on the facility's property.

10. To insure site safety and remove potential physical hazards, recyclable metals and solid wastes shall be removed from the site, where necessary, and disposed of in an approved manner.

11. All contaminated drums now stored on the site will be disposed of in an approved manner.

B. Breakdown of Estimated Costs:

Clean-Up Contractor

Separator/Drainage Design and NJPDES Compliance	$ 175,000
Boom Deployment/Oil Collection	20,000
Potential Resampling for Disposal Options	50,000
On-Site Contaminated Water Treatment	360,000
Cut-Off Tank Sludge Disposal	30,000
Underground Tank Removal and Disposal	80,000
Tank Farm C Improvements	20,000
Facility Diking Improvements	30,000
Drum Disposal	20,000
Disposal of Materials Presenting Physical Hazards	20,000
TAT Costs	120,000
Search for "Cost-Free" Removal of uncontaminated oil from site by potential users	25,000
Intramural Costs (HQ & Region)	50,000
TOTAL PROJECT CEILING	$ 1,000,000

C. Project Schedule:

Project initiation date pends finalization of State/EPA Contract Agreement. It is estimated that the planned removal action will be completed within 6 months (see Figure 1).

VI. REGIONAL RECOMMENDATIONS:

Since conditions at the Quanta Resources Corporation site meet the NCP Section 300.67 criteria for a planned removal, I recommend your approval of the planned removal request contingent upon the continued failure of responsible parties to take adequate action following issuance of appropriate notice or orders pursuant to the CERCL Act. The estimated total project costs are $1,000,000 of which

$805,000 are for extramural mitigation contractor costs. Your authority to approve this request is established by Deputy Administrator Alvin Alm's April 16, 1984 Delegation 14-1-A. Please indicate your approval or disapproval of this request by signing below.

APPROVE:_____ DATE:_____

DISAPPROVE:_____ DATE:_____

cc: J. Marshall, 20EP
W. Librizzi, 2ERR
R. Ogg, 2ERR-SIC
J. Frisco, 2ERR-NJRA
F. Rubel, 2ERR-SIC
W. Mugdan, 20RC-WTS
R. Gherardi, 20PM-FIN
P, Flynn, PM-214F (EXPRESS MAIL)
J. Stanton, WH-548B
W. Hedeman, WH-548
J. Berkowitz, NJDEP

Table 1

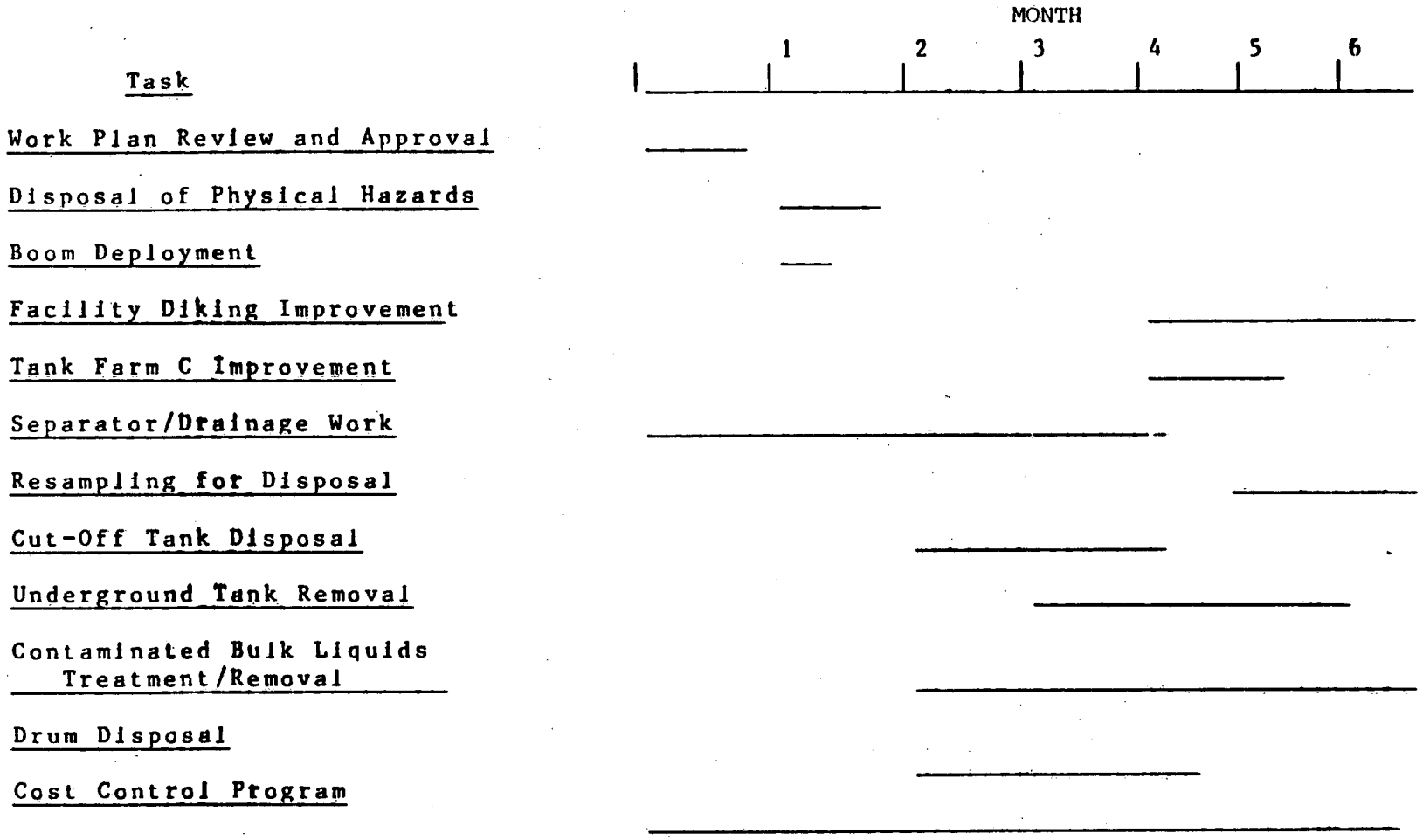
EDGEWATER TANK INVENTORY SUMMARY
(Paulson Engineering, Inc., - January 12, 1984)

PCB OIL

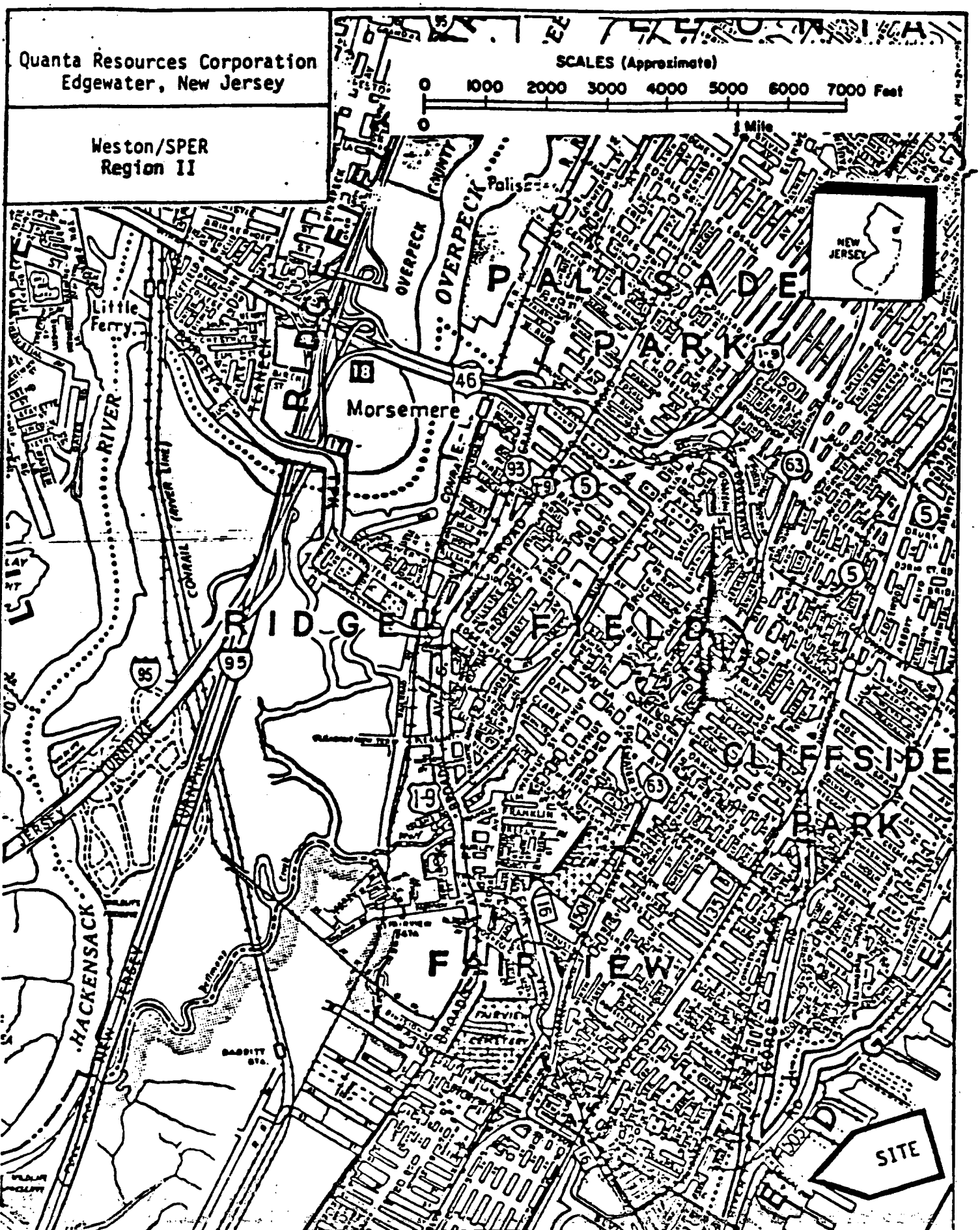
PCB Level (mg/l)	Gallons	Average PCB Content (mg/l)
>100	39,100	175
50-100	226,430	82.4
<50	484,830	11.7
TOTAL	750,360	

Contaminated Water

PCB Level (ug/l)	TOC Range (mg/l)	Gallons	Average PCB/TOC
>1	Up to 54,000	1,909,200	18.5 ug/l PCB
<1	>1,000	753,770	2775 mg/l TOC
<1	100-1,000	144,730	355 mg/l TOC
<1	<100	1,401,900	18.6 mg/l TOC
TOTAL		4,209,600	



WESTON SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM J. Witkowski	Figure 1
In association with ICF, Inc., Jacobs Engineering, Inc., & Tetra Tech, Inc.	TAT PM J. Brzozowski	Proposed Removal Timetable


Quanta Resources Corporation
Edgewater, New Jersey
Weston/SPER
Region II
SCALES (Approximate)
0 1000 2000 3000 4000 5000 6000 7000 Feet
0 1 Mile
NEW JERSEY
PALISADE
PARK
RIDGEFIELD
RIDGEFIELD PARK
CLIFFSIDE PARK
FAIRVIEW
Little Ferry
Morsemere
OVERPECK
OVERPECK COUNTY
HACKENSACK RIVER
CONRAIL (Lower Line)
JERSEY TURNPIKE
SITE

Attachment 5

Action Memorandum Signed March 21, 1985

Statutory One Million Dollar Exemption

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 18 1985

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Immediate Removal and Statutory $1 Million Exemption Request
(Addendum to Immediate Removal Request from Region II)
Quanta Resources Site--Edgewater, New Jersey--ACTION MEMORANDUM

FROM: Timothy Fields, Director
Emergency Response Division

TO: Jack W. McGraw
Acting Assistant Administrator

THRU: William N. Hedeman, Director
Office of Emergency and Remedial Response

ISSUE

Region II has requested the approval of a $4,460,000 removal action at the Quanta Resources Site, Edgewater, New Jersey.

DISCUSSION

Region II's Regional Administrator submitted a removal action/$1 million exemption request to Headquarters (HQ) on January 25, 1985, for the Quanta Resources site. This removal action is focused primarily on mitigating the threat of a massive release of hazardous substances into the nearby Hudson River and nearby business and transportation routes, and elimination of the threat of fire and explosion at the site. The action will be initiated as an immediate removal and continued and completed as a planned removal.

This addendum discusses a number of the tasks proposed by Region II in their January 25, 1985, request and serves to clarify why those tasks are necessary as part of this removal action. This addendum was prepared based on a series of recent discussions between Region II Removal Program personnel, Regional Counsel, HQ/Office of General Counsel (OGC) and the Emergency Response Division.

The focus of the cleanup is on removal of approximately 750,000 gallons of PCB-contaminated oil. The oil is stored in deteriorating tanks. Rupture of one or more of these tanks could result in discharge of a large quantity of PCBs into the river, and to surrounding businesses. Release of the most heavily contaminated oil (greater than 50 ppm PCB) would result in a direct contact threat to the surrounding population, and would result in discharge of a significant amount of PCBs into the Hudson River. Release of the oils contaminated with lower levels of PCBs (less than 50 ppm) would pose a lesser direct contact and environmental threat in the event of a release. However, some of the material has a low flashpoint, resulting in an elevated risk of fire. The less contaminated oil which does not have a low flashpoint may be suitable for recycling. If so, it will be removed from the site if this can be accomplished for a low cost, or would result in a credit to the project.

The Region also plans to remove all of the contaminated water from tanks located on the site. The most heavily contaminated water contains high levels of lead and cyanide, has high levels of chemical oxygen demand (COD), and is believed to contain a variety of hazardous organic substances, based on sampling for total organic carbon (TOC) and the Region's knowledge of the types of chemicals which were handled at this site. Failure of tanks could result in migration of this contaminated water beyond the site boundaries, posing a direct contact threat to the surrounding business population and road users. The remainder of the water, while much less contaminated, will be removed either to allow access to underlying sludges, or for site safety purposes (protection of the cleanup crew). Many of the tanks containing water are old, and have deteriorated badly. Heavy equipment will be used in the cleanup, and vibration from this equipment, or accidental contact with the tanks, could result in tank failure, causing a potentially serious injury to the cleanup crew.

The proposed action also includes removal and offsite disposal of some of the sludges found on the site, primarily those contained in the Tank Farm D, where the tanks are most deteriorated. Although the Region does not have detailed data on the nature of the contaminants in these sludges, they are believed to be heavily contaminated with a variety of hazardous substances, based on the fact that these tanks were known to be used for storage of the most hazardous substances handled at this facility. Again release of such substances could pose an immediate and significant threat of direct contact to persons near the site, and to the environment of the Hudson River.

Approximately fifty steel drums may be removed and disposed as part of this immediate removal action, depending on the results of sampling. The drums will first be compatibility tested and then checked for ignitability and other RCRA characteristics. Should the determination be made, after appropriate samples are analyzed, that the drum contents pose no immediate threat of fire, explosion or direct contact, the drums will be staged and left on site.

One of the actions proposed by the Region is preparation of documentation concerning the existing New Jersey Pollutant Discharge Elimination System (NJPDES) permit for the site. We have notified the Region that while the removal action may properly include bringing the oil/water separator into proper working order, it would be inappropriate to spend additional CERCLA funds on compliance with procedural permit requirements. We recommend that no additional funds be expended for preparation of these documents.

An updated Enforcement Status Sheet is attached to this addendum.

Recommendation

Since conditions at this site meet the CERCLA section 104(c)(1) criteria, I recommend that you approve an exemption from the $1 million limit to allow immediate/planned removal activities at the Quanta Resources site in Edgewater, New Jersey. In addition, I recommend you establish a total project ceiling of $4,460,000, of which $4,265,000 is for extramural cleanup contractor costs. Please indicate your approval or disapproval by signing below.

Approve: Jack McGraw Date: 3-21-86

Disapprove: _____ Date: _____

Attachment

Attachment 6

Action Memorandum Signed May 23, 1985

Ceiling Increase

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE 21 MAY 1985

Region II

SUBJECT Ceiling Increase Request For Removal Activities At The Quanta Resources Corporation, Edgewater, New Jersey Site - ACTION MEMORANDUM

FROM Christopher J. Daggett
Regional Administrator

TO Jack W. McGraw, Acting Assistant Administrator
Solid Waste and Emergency Response (WH-562A)

THRU: William N. Hedeman, Director
Office of Emergency and Remedial Response (WH-548)

ATTN: Timothy Fields, Director
Emergency Response Division (WH-548B)

Issue:

This is a Ceiling Increase request for the immediate removal action at the abandoned Quanta Resources site in Edgewater, Bergen County, New Jersey. It is necessary to increase the ongoing immediate removal action project ceiling by an additional $517,500 to complete the immediate removal action phase of the project.

Background:

On March 21, 1985, you approved a two part CERCLA action in excess of the $1,000,000 statutory limit for the Quanta Site. The first part is an immediate removal action and the second part a planned removal action.

Beside the additional immediate removal funds being requested herein, the correction of an addition error in the original action memorandum for the planned removal is also requested.

The Environmental Protection Agency (EPA) initiated the CERCLA immediate removal action on April 3, 1985, to remove hazardous substances resulting from the operation of a former waste oil recovery firm which also allegedly accepted other hazardous waste streams. It is also alleged that former occupants of the site left additional hazardous substances on site.

More than $390,000 of the total authorized immediate removal ceiling of $564,000 has been expended. As of May 10, 1985, an estimated ten (10) work days remain before the full amount authorized for the immediate removal action will have been expended.

Action Taken:

To date, the following has been accomplished:

1. Approximately 500,000 gallons of contaminated aqueous phase removed from badly leaking tanks or tanks exceeding yard secondary containment capacity.

2. Approximately 450,000 gallons of standing surface runoff water was treated by an oil/water separator and sand filter and discharged from the yard to the Hudson River to improve containment capacity and operational safety.

3. Approximately 32,000 gallons of low flash point contaminated oil sent to off-site disposal.

4. Site retrofitted for bulk operations to more rapidly and more safely remove contaminated materials.

5. Priority tanks physically measured to determine size and capacity and contents profiled.

6. Partial removal of physical hazards on site

7. Performed limited sampling and analysis.

8. Provided for site security.

Present Status:

In addition to materials previously known to be on site, over 800,000 gallons of contaminated aqueous material; 180,000 gallons of contaminated oils; and 270,000 gallons of contaminated sludges beyond that quantity which originally had been estimated to require immediate removal have been identified and need to be addressed. These materials were discovered in tanks which previously had only dripping leaks, but which have since developed flowing leaks with the onset of warm weather.

Field tests indicate the presence of halogens, low pH (<5), ignitable volatiles and high organic vapor readings (some more than 300 ppm). Air analyses have resulted in benzene readings of 300 ppm, and traces of phenols and cyanides. Some of the flammable liquids with a low flash point which previously were thought to be recyclable, thus providing a financial credit to the action, are not as easily disposed of as prior reports had shown, due to market changes. Instead of a credit of 20 cents per gallon, disposal of these materials will cost 45 cents per gallon.

This request is for an additional $517,500 in mitigation contracting funds to complete the prior approved immediate removal action to dispose of additional tank contents.

The Quanta site continues to meet the prescribed criteria for an exemption to the $1,000,000 limit. These criteria have previously been met, and continue to be met, as described in the Action Memorandum for this site, as approved by you on March 21, 1985.

Summary of Costs:

An additional $731,500 in the total project ceiling is requested due to arithmetic errors made in the planned removal budget and additional costs for the immediate removal budget.

The planned removal budget should be increased by $214,000 due to arithmetic errors as shown below.

It is also requested that the immediate removal budget be increased by $517,500 ($450,000 plus 15% contingency) to $1,081,500, also as shown below.

	Original	Corrected	Ammendment
Immediate Removal	470,000	470,000	-0-
Contingency	94,000	94,000	
	564,000	564,000	564,000
Additional Immediate Removal Funds Requested			517,500
			1,081,500
Planned Removal	3,155,000	3,425,000	3,425,000
Contingency	631,000	685,000	685,000
	4,460,000	4,674,000	5,191,500

Requested Ceiling	5,191,500
Existing Ceiling	4,460,000
Requested Increase	731,500

I hereby request an increase of $731,500 in the total project ceiling.

Enforcement:

A draft 106 Order on Consent was transmitted on March 29,1985 to potentially responsible parties. They have requested time through June 13, 1985 to respond. Responsible party actions would address the planned removal action, and is expected to be initiated in June, 1985.

Regional Recommendation:

Site conditions continue to meet the National Contingency Plan Criteria (300.65) for exceeding time and financial limitations. I recommend that you approve the ceiling increase for the immediate removal action to $1,081,500 of which $1,045,500 is for extramural mitigation contractor work. Additionally, I recommend you approve the corrected $4,110,000 planned removal project ceiling, of which $3,942,000 is for extramural mitigation contractor work.

Approve: _____ Date: MAY 24 1985

Disapprove: _____ Date: _____

cc: (Upon Approval)

W. Librizzi, 2ERR
F. Rubel, 2ERR-RP
G. Zachos, 2ERR-RP
R. Ogg, 2ERR-SIC
J. Frisco, 2ERR-NJRA
J. Marshall, 20EP
W. Mugdan, 20RC-WTS
R. Gherardi, 20PM-FIN
S. Wolfe, 2IG
P. Flynn, WH-548B
T. Fields, WH-548B
W. Hedeman, WH-548
J. Berkowitz, NJDEP

Attachment 7

Action Memorandum Signed July 23, 1985

Second Ceiling Increase

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

JUL 16 1985

Ceiling Increase Request for the Immediate Removal Action at the Quanta Resources Corporation, Edgewater, New Jersey Site - ACTION MEMORANDUM -

Christopher J. Daggett
Regional Administrator

Jack W. McGraw, Acting Assistant Administrator
Solid Waste and Emergency Response
(WH-562A)

THRU: William N. Hedeman, Director
Office of Emergency and Remedial Response (WH-548)

ATTN: Timothy Fields, Director
Emergency Response Division (WH-548B)

ISSUE:

This is a Ceiling Increase request for the Immediate Removal Action at the abandoned Quanta Resources site in Edgewater, Bergen County, New Jersey. It is necessary to increase the ongoing Immediate Removal Action project ceiling by an additional $500,000 to continue the Immediate Removal Actior phase of the project.

BACKGROUND:

On March 21, 1985, you approved a two part CERCLA action in excess of the $1,000,000 statutory limit for the Quanta site. The first part was an immediate removal action and the second part a Planned Removal Action. On May 24, 1985, you approved a $517,500 project ceiling increase to complete part of the Immediate Removal phase of the project.

The Environmental Protection Agency (EPA) initiated the CERCLA Immediate Removal Action on April 3, 1985, to remove hazardous substances resulting from the operation of a former waste oil recovery firm which also allegedly accepted other hazardous waste streams. It is also alleged that former occupants of the site left additional hazardous

substances on site. On site conditions are deteriorating at an accelerated rate posing a continuous worsening threat to the surrounding populace and the environment from the remaining large volume of hazardous material still on site.

More than $ 1,072,000 of the total authorized Immediate Removal ceiling of $1,081,500 has been expended. As of July 12, 1985, an estimated three (3) work days remain before the full amount authorized for the Immediate Removal Action will have been expended.

ACTION TAKEN:

To date, the following has been accomplished:

1. Approximately 1,537,000 gallons of contaminated aqueous phase removed from badly leaking tanks or tanks exceeding yard secondary containment capacity.

2. Approximately 1,700,000 gallons of standing surface runoff water was treated by an oil/water separator and sand filter and discharged from the yard to the Hudson River to improve containment capacity and operational safety.

3. Approximately 72,000 gallons of contaminated oil sent to off-site disposal.

4. Approximately 24,000 gallons of contaminated sludge from tanks in unstable condition removed off site.

5. Site retrofitted for bulk operations to more rapidly and more safely remove contaminated materials.

6. Installed a sand and hydrocarbon removal media filter to treat aqueous material from selected tanks and worsening levels of polluted yard water.

7. Priority tanks physically measured to determine size, capacity and contents profiled.

8. Selected tanks being covered to prevent additional aqueous material from becoming contaminated.

9. Partial removal of physical hazards on site.

10. Performed limited sampling and analysis.

11. Provided for site security.

PRESENT_STATUS:

Conditions on site have worsened with the onset of hot weather with variable heavy thunderstorms. Over 350,000 gallons of contaminated aqueous material remain in tanks slated originally for an immediate removal. Additional leaks in Tanks A1 and A2 indicate that the 230,000 gallons of contaminated aqueous and 40,000 gallons of contaminated oil base material should also be removed from these tanks. Also, limited analytical data from sludge on site indicates additional actions are needed to prevent spillage/leakage and insure containment on site.

This request is for an additional $360,000 in mitigation contracting funds to complete the prior approved Immediate Removal Action and to dispose of additional tank contents. Also, to adjust and add $ 130,000 to TAT and $10,000 to EPA accounts to continue the removal action.

The Quanta site continues to meet the prescribed criteria for an exemption to the $1,000,000 limit. These criteria have previously been met and continue to be met, as described in the Action Memoranda for this site, as approved by you on March 21, and May 24, 1985.

SUMMARY_OF_COSTS:

Mitigation Contracting Additional	$ 360,000
TAT Additional	130,000
EPA Additional	10,000
Additional Immediate Removal Funds Requested	500,000
Present Immediate Removal Fund	$ 1,081,500
New Immediate Removal Fund	1,581,500
Planned Removal	4,110,000
	$ 5,691,500

Requested Ceiling	$ 5,691,500
Existing Ceiling	- 5,191,500
Requested Increase	$ 500,000

ENFORCEMENT:

A draft 106 Order on Consent was transmitted on March 29, 1985 to potentially responsible parties. They have requested time through July 22, 1985 to respond.

Responsible party actions would address the Planned Removal Action, and is expected to be initiated in September 1985. The delay is due to the complexity and magnitude of the cleanup operation. To date, 44 PRP's have consented and established a cleanup trust of $6,000,000 toward an estimated $10,000,000 needed for aqueous, oil and sludge removal from the site. The additional time is necessary to allow 3 key PRP's time to resolve liability issues and commitment of resources for site mitigation, including all sludges. A unilateral order has been drafted for issuance to non-consenting PRP's.

EPA Planned Removal Action will commence as expeditiously as possible with the initiation of sampling/analytical activities.

REGIONAL RECOMMENDATION:

Site conditions continue to meet the National Contingency Plan Criteria (300.65) for exceeding time and financial limitations. I recommend that you approve the ceiling increase for the Immediate Removal Action to $1,581,500 of which $1,405,500 is for extramural mitigation contractor work. The Planned Removal budget remains at $4,110,000 of which $3,942,000 is for extramural mitigation contractor work.

Approve: _____ Date: 7-23-85

Disapprove: _____ Date: _____

cc: (Upon Approval)
W. Librizzi, 2ERR
F. Rubel, 2ERR-RP
G. Zachos, 2ERR-RP
R. Ogg, 2ERR-SIC
J. Frisco, 2ERR-NJRA
J. Marshall, 20EP
W. Mugdan, 20RC-WTS
R. Gherardi, 20PM-FIN
S. Wolfe, 2IG
P. Flynn, WH-548B
T. Fields, WH-548B
W. Hedeman, WH-548
J. Berkowitz, NJDEP

Attachment 8

Action Memorandum Signed August 1, 1985

Six Month Exemption

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE:

REGION II

SUBJECT: Six-Month Time Exemption to Allow Continued Removal Activities at the Quanta, Edgewater, New Jersey Site - ACTION MEMORANDUM

FROM: John W. Witkowski, On-Scene Coordinator
Response and Prevention Branch

TO: Christopher J. Daggett
Regional Administrator

THRU: William J. Librizzi, Director
Emergency and Remedial Response Division

Issue

Continued response actions of a duration greater than six months cannot be undertaken unless an exemption to Section 104 (c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) is granted. The initial response action of the Quanta site in Edgewater, New Jersey, took place April 3, 1985. The six-month time limit expires October 3, 1985.

This is to confirm approval of exemption to the statutory six-month time limit originally presented in your January 25, 1985 action memorandum to Mr. Jack McGraw, Acting Assistant Administrator for Solid Waste and Emergency Response.

Statutory Criteria

Section 104(c) of CERCLA limits Federal emergency response to six months in duration unless three criteria are met: (1) continued response actions are immediately required to mitigate an emergency; (2) there is an immediate risk to public health and the environment; and (3) such assistance will not otherwise be provided on a timely basis.

Discussion

The U.S. Environmental Protection Agency (EPA) initiated emergency action on April 3, 1985 to reduce releases and stabilize potential major releases at the abandoned waste oil recovery site which was approved by an action memorandum dated March 28, 1985 signed by Mr. Jack McGraw. The memorandum approved expenditures in excess of the one million dollar limit.

Although the approved memorandum referred to your request of January 25, 1985 which discussed and requested approval also of a six month time extension, this action was referred back to the Region as having been delegated to you.

At this time, the immediate removal continues and with the initiation of the Planned Removal Action, the exemption to the six month time limit is required.

As defined in the action memorandum and subsequent increase in the immediate removal funding dated March 24 and July 17, 1985, the criteria as defined above continue to be met. The time required to complete the removal action, including the million gallons of contaminated sludge, is estimated to be 14 months.

Recommendation

Because conditions at the Quanta site continue to meet the CERCLA 104 (c) criteria, I request that you reaffirm the exemption from the six month limit to allow the removal activities to continue by approving this action memorandum. Responsible party action will allow expenditure of Federal mitigation contracting funds to cease pending the results of such action implementations.

Approval: _____ Date: 8/1/85

Disapproval: _____ Date: _____

cc: (upon approval)

W. Librizzi, 2ERR
F. Rubel, 2ERR-RP
R. Ogg, 2ERR-SIC
J. Frisco, 2ERR-NJRA
J. Marshall, 2OEP
W. Mugdan, 2ORC-WTS
R. Gherardi, 2OPM-FIN
P. Flynn, WH-548B (EXPRESS MAIL)
T. Fields, WH-548B
W. Hedeman, WH-548B
S. Wolfe, 2IG
J. Berkowitz, NJDEP